

ENVIRONMENTAL ASSESSMENT (EA)
for the
REPAIR OF FLOOD RELATED ROAD DAMAGE

(EA# OR-110-00-006)

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
GRANTS PASS RESOURCE AREA

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DEPARTMENT OF THE INTERIOR
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EA COVER SHEET

RESOURCE AREA: Grants Pass FY & EA #: OR-110-00-006

ACTION/TITLE: ***Repair of Flood Related Road Damage - ERFO FY2000***

LOCATION: Grants Pass Resource Area, Medford District

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Environmental Assessment
Repair of Flood Related Road Damage

TABLE OF CONTENTS

	<i>Page</i>
Chapter 1	
Need for the Proposal	1
A. Introduction	1
B. Purpose and Need for the Proposal	1
Chapter 2	
Proposed Action	3
A. Introduction	3
B. Issues Relevant to the Project Proposal	3
C. Proposed Action and Alternatives	3
1. Objectives of the Proposed Actions	3
2. Alternative 1: No Action	4
3. Alternative 2: Proposed Action	4
D. Project Design Features	5
Chapter 3	
Environmental Consequences	6
A. Introduction	6
B. Environmental Consequences of the Alternatives	6
1. Resource: Soils and Water	6
2. Resource: Fisheries	7
4. Resource: Wildlife	8
5. Resource: Fuels / fire	9
6. Resource: Botany	10
7. Resource: Roads and Access	10
Chapter 4	
Agencies and Persons Consulted	11
A. Public Involvement	11
B. Availability of Document and Comment Procedures	11
C. ESA Consultation	11
Map 1 - Project Location Map	2
Table 1: Proposed Road Damage repair	4

Chapter 1

Need for the Proposal

A. Introduction

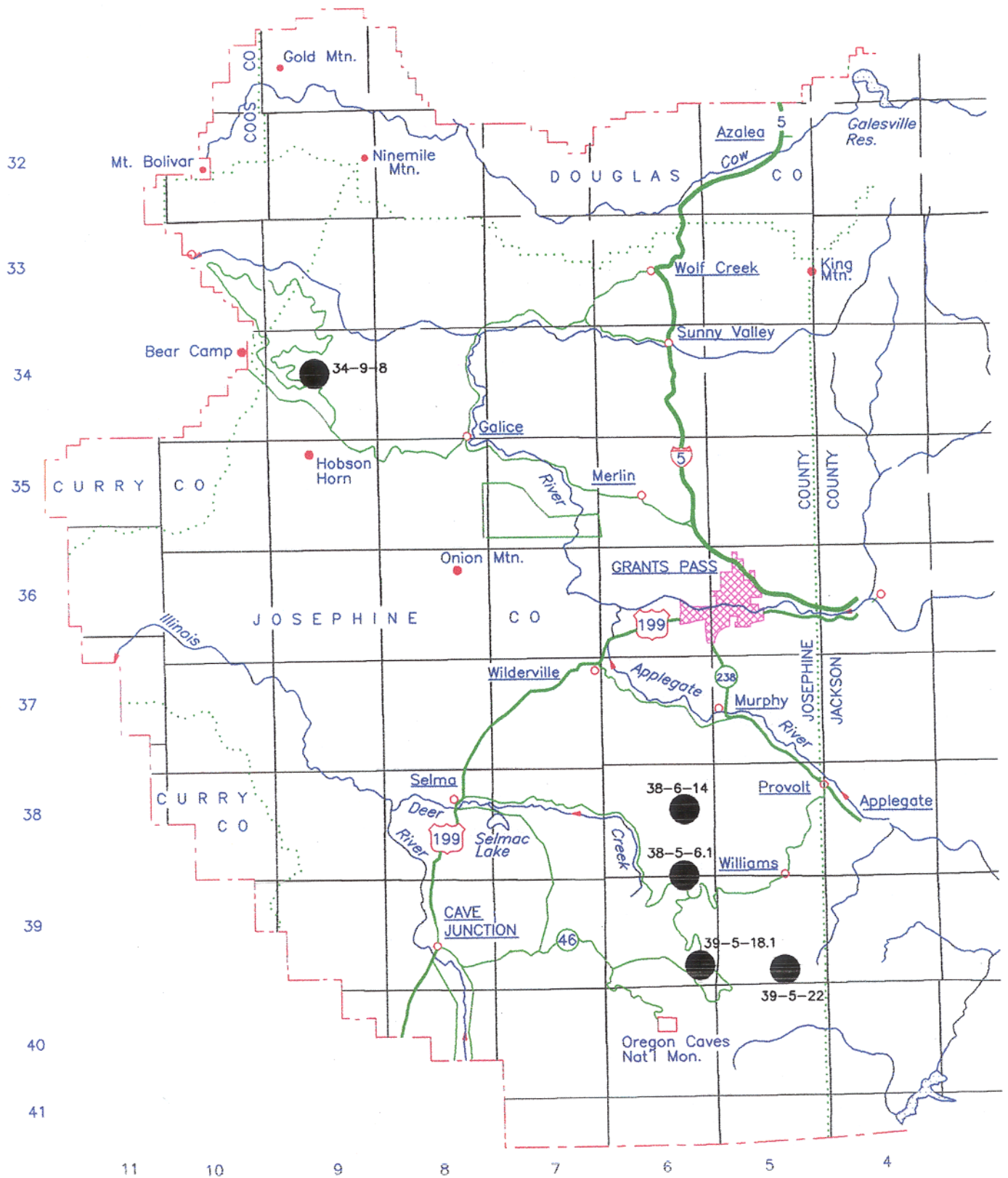
This EA will assist in the decision making process by assessing the environmental and human affects resulting from implementing the proposed action. The EA will also assist in determining if an environmental impact statement (EIS) needs to be prepared or if a finding of no significant impact is appropriate.

This EA tiers to: (1) the Final EIS and Record of Decision dated June 1995 for the Medford District Resource Management Plan (RMP-ROD) dated October 1994; (2) the Final Supplemental EIS on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl dated February 1994; (3) the ROD for Amendments to Forest Service and Bureau of Land Management (BLM) Planning Documents Within the Range of the Northern Spotted Owl and its attachment A entitled the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl dated April 13, 1994 (NFP-ROD).

B. Purpose and Need for the Proposal

In the spring of 1997 BLM roads were evaluated for repair of flood damage due to a 50-100 year rainfall/flooding event that occurred in early 1997. A list of damaged roads was developed and prioritized based on: present and future access needs, funding, and extent of damage. The purpose of the proposal is to repair existing BLM roads that were damaged by the FY 97 flooding on the Medford District.

Map 1 Project Location



Chapter 2

Proposed Action

A. Introduction

During the winter of 1997, flooding reached 50-100 year levels across the Medford District. The result of this flooding was moderate to severe road damage on some existing BLM roads, roads which provide access to both BLM and private lands. The road damage varied from slides blocking roads to fill failures preventing access. Additional flood damage occurred in 1999. Some of these proposed project areas had existing culverts that were unable to sustain the extreme water levels. Historically the BLM standards for culvert design were based on water levels of a 50-year flood. The Medford District Resource Management Plan (RMP, p. 87) directs upgrading existing road culverts which are determined to pose a substantial risk to riparian conditions to accommodate at least a 100-year flood and to provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams.

B. Issues Relevant to the Project Proposal

Issues were identified through discussions with interested individuals or groups and the BLM core project planning team. The pertinent issues identified are:

1. Roads are needed for BLM administrative and public access and are important for fire access.
2. The project is located within the range of Port-Orford cedar (POC) so all activities should comply with the BLM Port-Orford Cedar Management Guidelines. Port-Orford Cedar (POC) and *Phytophthora lateralis* (PL) are within the Williams Watershed.
3. Maintaining and/or improving fish passage.
4. Existing culverts were designed to accommodate a 50-year flood event, or less.
5. Damaged roads in their present condition present conditions unsafe to the driving public.

C. Proposed Action and Alternatives

1. Objectives of the Proposed Actions

- a. To re-establish access on existing BLM roads where access is needed to manage O&C, PD, and private lands.
- b. Where culverts have washed out, to improve culvert design to accommodate a 100 year flood event.
- c. To renovate and repair roads that were damaged by the flooding and have a

potential for further environmental damage if repair and maintenance does not occur.

- d. To prevent the spread of *Phytophthora lateralis* (PL) in uninfected Port-Orford Cedar (POC) areas.

2. Alternative 1: No Action

In this EA document the “no-action” alternative is defined as not implementing any aspect of the proposed action alternative(s). Defined this way, the action no action alternative also serves as a baseline or reference point for evaluating the environmental effects of the action alternatives. Inclusion of this alternative is done without regard to whether or not it is consistent with the Medford District RMP.

It should be pointed out that the no action alternative is not a “static” alternative. Implicit in it is a continuation of the environmental conditions and trends that currently exist or are occurring within the project area. This would include trends such as vegetation succession and consequent wildlife habitat changes, road condition / deterioration, rates of erosion, continuation of current road densities, trends in fire hazard changes, etc.

3. Alternative 2: Proposed Action

The proposed action is to repair the roads listed in Table 1 which were damaged by the winter 1997 & 1999 flooding. Work would be accomplished in FY2000 or later, depending on the availability of funding. Damage repair could include reconstruction, removal of slide material, fill replacement, improve and/or renovate road drainage, rock blankets and other road repair and road stabilization techniques.

Table 1: Proposed Road Damage repair			
Road #	Road Name	Damage	Proposed Action
39-5-6.1	Mungers Creek	Road washed out approximately 40' x 25' wide x 15' deep. Washout at MP 2.2, 48" CMP.	Replace existing CMP with 54" CMP. Fill with material from East Fork Williams Quarry.
39-5-22	Glade Fork	Road slumped out approximately 160' x 35' wide x 35' deep. Slump at MP 3.9 30" CMP.	Replace existing CMP with 66" CMP. Repair slump with fill material from East Fork Williams Quarry.
39-5-18.1	Low Divide Road	Road slumped out approximately 130' x 20' wide X 15' deep. Failed existing 24" CMP requires replacing.	Replace 24" with 36" CMP. to meet 100 year flood requirements Repair slump with material from East Fork Williams Quarry.
34-9-8	Big Windy Creek	Road washed out approximately 100' X 40' wide x 20' deep. Existing 48" CMP is heavily damaged, requires replacement.	Replace existing 48" CMP with 72" CMP to meet 100 year flood requirements. Fill with material from quarry 208 Curry Ridge
38-6-14	Spencer Creek	Road washed out approximately 120' x 25' wide x 18' deep. Existing 36" CMP is damaged, requires replacement.	Replace existing 36" CMP with 60" CMP to meet 100 year flood requirements. Fill with material from 160 Mungers Butte.

D. Project Design Features

PDFs are included for the purpose of reducing anticipated adverse environmental impacts which might stem from the implementation of the proposal.

1. Fisheries Protection / enhancement

Provide a natural stream bed when the stream gradient is three percent or greater, create a design that precludes development of a pool below the culvert, rip rap inlet and outlet to reduce fill erosion, BLM standards for culverts where fish passage is a primary concern will be met.

Seasonal work restrictions will apply: in stream work will be restricted to between July 15 through September 15.

2. Vegetation

In Port-Orford root disease areas, limit the potential for the spread of the disease by requiring the washing of earth moving equipment before entering a Port-Orford cedar area and when leaving an area infected with PL area. Travel routes and parking areas will be specified to as to minimize the potential for spread of the disease. A washing station will be designated in root disease areas for washing equipment leaving the project area.

This would be applied for the roads / project area as follows:

Road 39-5-6.1 - POC area, no listing of PL.

Road 39-5-22 - PL along the road in section 27, multiple locations.

Cedar Wallow Quarry - POC area. PL present all along the Cedar Flat Road.

East Fork Williams Quarry - We have no record of either PL or POC in this subdrainage.

If seeding occurs as part of the stabilization process, there may be an impact to native vegetation recovery if perennial non-native species are used. To preclude this, a seed mixture consisting primarily of native species (if available) or short lived species would be used.

Chapter 3

Environmental Consequences

A. Introduction

Only substantive site specific environmental changes that would result from implementing the proposed action are discussed in this chapter. If an ecological component is not discussed, it should be assumed that the resource specialists have considered affects to that component and found the proposed action would have minimal or no effects. Similarly, unless addressed specifically, the following were found not to be affected by the proposed action: air quality; areas of critical environmental concern (ACEC); cultural or historical resources; Native American religious sites; prime or unique farmlands; floodplains; endangered, threatened or sensitive plant, animal or fish species; water quality; wetlands/riparian zones; wild and scenic rivers; and wilderness areas.

B. Environmental Consequences of the Alternatives

1. Resource: Soils and Water

a. Affected Environment

Three of these project sites are located in the Williams Creek 5th Field watershed. One site is in the Murphy watershed, near Spencer Creek (tributary to Murphy Creek) and one site is in the Wild Rogue - South watershed, south of the Rogue. Soils vary from erosive granitic soils to soils developed from various types of metamorphic rock. All sites are now unstable, in an erosive condition subject to concentrated runoff during the wet season.

b. Environmental Effects

If left as is, all sites would continue in an unstable condition for years to come and would continue to erode, both in short and long terms. With the implementation of these projects (including replacing undersized drainage features with new cross drains designed to withstand 100-year storm events, placement of rock fill for stability, and placement of rock blankets for erosion control and slope stabilization) these sites should stabilize with reduced erosion and sedimentation starting at the first wet season. Further, as short term becomes long term, erosion, instability and sedimentation should return to pre-flood levels.

The Mungers Creek site is different in that it was temporarily repaired by replacing the washed out pipe and filling over it. The resultant road is now barely passable due to lack of road width. The proposed new larger culvert will be used to replace the existing one and the road width will be increased to match pre-flood width.

c. Cumulative Effects

Implementation of these projects will reduce existing cumulative effects by lowering erosion and sedimentation rates at the various sites. The incremental level of reduction would not be detectable at the

5th field watershed level.

2. Resource: Fisheries

a. Affected Environment

There are no fish present in the streams at the designated sites. The streams where these designated sites are located are not key watersheds, however essential salmonid habitat is located downstream from these sites. The Governor's coho salmon plan designates Williams Creek as a core area. Munger's Creek is a tributary to Williams Creek. Munger's Creek is a designated area for ERFO road work.

b. Environmental Consequences

1) Alternative 1: No Action

Short term: The 1997 flood caused road slumps and washouts which have caused short term adverse impacts to fish. This alternative will allow sediment delivery to streams to continue for several years. Downstream, this will cause a reduction in survival and production of salmonids. Excessive sediment delivery and deposit suffocates eggs in the gravels and cause a direct mortality. Additionally, excessive sediment delivery will produce indirect mortality to juvenile fish. Adult fish will also have migration and spawning impaired.

Long term: The no action alternative will cause continued major long term adverse impacts to fish downstream from the project areas. The types of long term adverse impacts are the same as for short term impacts. Overall adverse effects include a greater mortality to the fish population and habitat over a greater time period. There are no beneficial impacts from this alternative.

Cumulative: The cumulative direct and indirect adverse impacts are the greatest in this alternative because of the synergistic effect with all other Rogue River Basin and fifth field perturbations to the salmonid populations and habitat. A substantial increase in sediment delivery at each site will produce substantial adverse effects if no action is taken to remedy the problem. No short or long term or cumulative effects have been quantified.

2. Alternative 2: Proposed Action

Short term: Any sediment delivery effects to the stream will cause highly localized, unmeasurable, negligible, short term adverse impacts at the project level (6th and 7th field scales) and fifth field scale. The minimal increase of sediment delivery produced from these proposed actions are not expected to appreciably affect the survival or production of salmonids. It is anticipated the long term beneficial effects will maintain downstream salmon survival and production and far outweigh any short term adverse effects. The reduction in sediment delivery will aid with egg and juvenile fish survival because the risk of egg suffocation is lower. The risk of direct or latent mortality to juvenile fish from sediment delivery is substantially minimized when compared to the no action alternative. These effects are inclusive for direct and indirect adverse and beneficial effects to fish.

Long term: Sediment delivery effects to the stream are the same as the short and long term adverse effects. It is anticipated the long term beneficial impacts will maintain downstream salmon survival and production, and far outweigh any adverse effects. These effects are inclusive for direct and indirect adverse and beneficial effects to fish.

Cumulative: The cumulative adverse direct and indirect effects are minimal or negligible in this alternative because of the effort to alleviate sediment delivery. The adverse effects to fish extend to the Rogue River and especially at the fifth field scale. The minimal increase of sediment delivery produced from these proposed actions are not expected to appreciably affect the survival or production of salmonids. The cumulative beneficial effects are greater in this alternative because the actions will maintain salmon survival and production and habitat. Excess sediment delivery from the proposed actions will be halted or substantially minimized. No short or long term or cumulative effects have been quantified.

4. Resource: Wildlife - special status/manage and survey species and their habitats

a. Introduction

The proposed actions lie in 3 fifth field watersheds: the Wild Rogue - South watershed which drains into the Rogue River, the Williams watershed and the Lower Applegate (Murphy) watersheds which drain into the Applegate river. The project entails repairing a series of failed slopes, roads and culverts. A large amount of sediment has built up behind the failed culverts. All sites for the project have been surveyed for Survey and Manage species.

b. Environmental consequences

1) Alternative 1: No Action

There are two primary habitats in the project areas: riparian and rocky talus slopes. Under the “No action” alternative the current situation of failed slopes, roads and culverts would remain. Degradation of the aquatic system through sedimentation would continue. Two species of amphibians listed by the state of Oregon as “sensitive” are located in the action area and are affected by poor water quality: the Southern torrent salamander (*Rhyacotriton variegatus*) and the Tailed frog (*Ascaphus truei*). Both species require clean, silt free gravely substrate. There would be a continued loss of habitat and individuals. A worst case scenario is that the sediment would flush through the system, filling interstitial spaces, temporarily degrading habitat and killing individuals.

Talus slopes in the action areas would essentially remain free from disturbance except where erosion has undermined the slopes. Species associated with the talus such as the Del Norte salamander, a Survey and Manage species would continue to occupy the available habitat. Populations would remain on current trajectory.

No terrestrial species listed under the Endangered Species Act are known to be potentially affected by the No Action Alternative.

3. Alternative 2: Proposed Action

Under this alternative the roads would be repaired, culverts would be replaced and failed slopes would be stabilized. New culverts installed would be capable of handling a 100 year flood event. In some instances, the action has the potential to adversely affect adjacent habitat and some cases contiguous habitat for the Del Norte salamander. The timing of the action and scope of material to be moved will ultimately determine the overall affects. Proposed mitigating measure #1 will minimize potential adverse effects to Del Norte salamanders. A worst case scenario is that small areas of that habitat will be modified to complete the project.

Replacement of culverts has the potential to affect the habitat for the 2 state listed species noted above. Proposed mitigation measure #2 (below) would minimize any negative affect to the two species. A worst case scenario is that in the short term, sediment is allowed to flush through the system, filling interstitial spaces, temporarily degrading habitat and killing individuals.

No terrestrial species listed under the Endangered Species Act would be affected by the Action Alternative.

Proposed Mitigation Measure #1: Repair areas that have Del Norte salamanders (Spencer Creek site) when temperatures remain below freezing for more then 3 days or when temperature are above 25° Celsius and the site is dry. Areas of occupied habitat would be clearly delineated on the ground and avoided during any excavation operations. Do not side cast fill material in occupied habitat or within the riparian reserve.

Proposed Mitigation Measure #2: Replace culverts during low flows to minimize any sediment entering the system. Sediments that have built up behind the culverts would be removed prior to the replacement of the pipe. No material would be side cast within a riparian reserve.

Table 3-1: Affects of Action Alternative		
Road #	Road Name	Comment
34-9-8	Big Windy Creek	No Sensitive Species present
38-6-14	Spencer Creek	Adjacent slopes and road fill occupied by Del Norte salamanders. Stream and adjacent riparian area occupied by Souther torrent salamanders and tailed frogs.
39-5-6.1	Mungers Creek	No Sensitive Species present
39-5-22	Glade Fork	No Sensitive Species present
39-5-18.1	Low Divide Road	No Sensitive Species present

5. Resource: Fuels / fire

- a. Environmental consequences
 - 1) Alternative 1: No Action

Roads blocked by slumps and slides would prevent access for wildfire control.

- 2) Alternative 2: Proposed Action

Alternative 2 would result in improved access for fire suppression forces for initial action. This would mean a more rapid response to wild land fires thereby limiting the potential for large scale fire events developing.

6. Resource: Botany

- a. Affected Environment

The areas proposed for repair have been heavily altered from washouts and/or slumping. As a result of this, any native vegetation in the immediate areas has been damaged or removed entirely. All five sites, while not surveyed in relation to this project, are adjacent to or within one mile of other areas that have been surveyed for other projects. None of these surveys located any special status or Survey and Manage vascular plant populations. None of these areas provide high quality special status or Survey and Manage vascular or non-vascular habitat since they are essentially roadside in nature. No noxious weeds were located in adjacent surveys.

- b. Environmental Effects
 - 1) Alternative 1: No Action

The no action alternative may have the effect of an increased disturbance of native plant habitat downslope of the flood damaged areas. Without the areas repaired, the possibility of erosion would remain and may increase significantly under other flood events.

- 2) Alternative 2: Proposed Action

This alternative would stabilize the damaged areas, allowing for recovery of vegetative cover and a reduction in future erosion would occur. This, in turn, would ensure that native plant habitat adjacent to these damaged areas would remain undisturbed.

7. Resource: Roads and Access

- a. Alternative 1: No Action

Storm damaged roads will continue to be a public safety hazard.

b. Alternative 2: Proposed Action

Safety hazards would be repaired. Slump and slide areas would be stabilized. Public access would be available for forest development, recreation and emergencies.

Chapter 4

Agencies and Persons Consulted

A. Public Involvement

A 15 day formal comment period will be held for this Environmental.

B. Availability of Document and Comment Procedures

Copies of the EA document will be available for formal public review in the BLM Medford District Office. Written comments concerning the EA will be accepted for 15 days after the announcement of the availability of the EA appears in the Grants Pass Daily newspaper.

C. ESA Consultation

The projects addressed in this EA were included in the National Marine Fisheries Service's March 18, 1997 Biological Opinion and Conference Opinion for the Programmatic Resource Management Plan regarding Coho Salmon Endangered Species Act consultation. It was determined the type of culvert placement and road repair will have a negligible adverse effect and will provide a long term benefit to the fisheries.